SUPERFUND MEMORANDUM OF UNDERSTANDING BETWEEN THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 4

PURPOSE

The purpose of this Superfund Memorandum of Understanding ("SMOU") is to provide clarity, confirm and reinforce the roles and responsibilities of the U.S. Environmental Protection Agency, Region 4 ("EPA") and the Florida Department of Environmental Protection Agency ("FDEP") regarding the PRP lead cleanup and remediation at the Stauffer Chemical Superfund Site in Tarpon Springs, Pinellas County, Florida (the "Site").

II. BACKGROUND

FDEP and community residents near the Site have expressed a number of concerns regarding the arsenic cleanup level, the geology of the Site, the reliability of the selected remedy, and groundwater issues. EPA, in response to these concerns, has modified its arsenic cleanup "Performance Standard," and will require additional, more detailed technical studies to be conducted in addressing the remedy, geology and groundwater.

The United States of America (the "United States"), on behalf of EPA, lodged a proposed consent decree for the cleanup and remediation of the Site for Operable Unit 1. The Site's Settling Defendants executed the proposed consent decree and are responsible for the funding and performance of the cleanup and remediation at the Site. To address concerns expressed by the community and FDEP, EPA and Settling Defendants will withdraw the proposed consent decree, without prejudice, and instead will agree to perform such detailed technical studies pursuant to an enforceable agreement. FDEP will concurrently withdraw its Motion to Intervene, without prejudice. If EPA determines, based on the results of such studies and the comments received from FDEP, that the current selected remedy is not protective of human health and the environment, EPA may select alternative response actions for the Site in accordance with the requirements of CERCLA and the NCP. At that time, EPA will then enter into negotiations with the Settling Defendants for the performance of the remedy pursuant to a proposed consent decree.

III. THE ROLES AND RESPONSIBILITIES OF EPA AND THE FDEP IN ADDRESSING CONCERNS RAISED REGARDING THE CLEANUP AND REMEDIATION OF THE SITE

EPA is firmly committed to working cooperatively with FDEP to provide the maximum opportunity to review and comment on documents, plans and strategies related to the cleanup and remediation of the Site. FDEP is firmly committed to working cooperatively with EPA to provide timely comments and alternative approaches in the event of disagreement.

EPA and FDEP are committed to ensure that the cleanup and remediation of the Site is protective of human health and the environment. Further, EPA and FDEP are committed to ensuring that the selected remedy will maintain long-term protectiveness. Specifically, EPA and FDEP set forth the following in addressing the concerns raised at the Site:

A. The cleanup standard for arsenic in soils at the Site:

EPA has selected 3.7 mg/kg as the cleanup goal for arsenic in soils at the Site. This cleanup goal for arsenic corresponds to FDEP's default cleanup target level for industrial/commercial use which is based on an incremental excess cancer risk level of 1 x 10 -6. Upon entry with the District Court of any consent decree for the performance of the remedy, EPA will enforce its selected goal for arsenic in soils at the Site as a "Performance Standard" under the terms of such consent decree. Any change in the "Performance Standard" must achieve the same level of public health protection. In the event that the "Performance Standard" is proposed for change, EPA will solicit review and comment from FDEP prior to finalizing the "Performance Standard" modification. Further, upon entry of any consent decree with the District Court, EPA will require institutional controls enforceable under State and federal law that restrict the future use of the Site to non-residential use, or another use that is less intensive than those used to derive the industrial/commercial cleanup target level referenced above.

B. The evaluation of the geology of the Site:

Concerns have been raised by FDEP and the community about the geology of the Site and whether it will support the selected remedy of in-situ solidification/stabilization. To address this concern, EPA will negotiate an enforceable agreement to require the Settling Defendants to conduct geophysical studies to determine the probability of sinkhole formation beneath the Site and the ability of the underlying geological formation to support the selected remedy.

EPA shall submit all reports pursuant to this SMOU to the FDEP Project Manager and to the Director of the Division of Waste Management of FDEP. FDEP will provide to EPA, as soon as possible but no later than 45 days from receipt, any comments that it may have regarding all deliverables required pursuant to the geophysical studies and all other reports pursuant to this review. EPA will ensure that the Settling Defendants timely receive a copy of the FDEP comments received by it.

Prior to the final acceptance of the geophysical study and final report by EPA, EPA and FDEP will meet to discuss the results of the study and the report to evaluate whether any outstanding issues remain to be addressed by the Settling Defendants; including whether the Settling Defendants have addressed data gaps identified in studies at the Site, such as the Data Evaluation Report prepared by Black and Veatch.

The Settling Defendants have selected O'Brien and Gere Engineers, Inc. ("O'Brien and Gere") as their contractor. O'Brien and Gere may be subcontracting the work for the sinkhole studies. If so, the Settling Defendants will submit to EPA a list of potential subcontractors to conduct the sinkhole studies. EPA will review the list and advise the Settling Defendants of any subcontractors to be disapproved. The Settling Defendants will then make a final selection from the remaining subcontractors. FDEP may, at its discretion, review such list and provide comments as appropriate prior to any EPA action on the list.

C. The reliability of the in-situ solidification/stabilization remedy:

1. Treatability Study.

EPA is firmly committed to implementing a remedy that is protective of human health and the environment. However, FDEP and the community have expressed concern about the ability of the selected remedy to maintain long-term protectiveness. To address this concern, EPA will require the Settling Defendants to conduct treatability studies as part of the enforceable agreement referenced above. Of significant importance is the ability to ensure quality control during the in-situ solidification/stabilization process and to ensure the long term protectiveness of the remedy over its life. Treatability studies will determine the appropriate mixture for the in-situ solidification/stabilization process, consider potential effects of salt water intrusion, assess the potential for sinkhole formation, and evaluate other complications associated with Karst geology.

EPA commits to thoroughly consider all comments and recommendations submitted by FDEP with regard to such treatability studies conducted and submitted by the Settling Defendants pursuant to the enforceable agreement.

If EPA determines based on the results of the treatability studies and the comments received from FDEP, that the selected remedy is not protective of human health and the environment, or does not meet Performance Standards, EPA may select alternative response actions for the Site in accordance with the requirements of CERCLA and the NCP.

2. Investigation of Hydraulic Connectivity:

Under the enforceable agreement, groundwater in the surficial and Floridian aquifers will be evaluated to determine its flow characteristics and any connectivity between aquifers as it pertains to the effectiveness of the source control remedy. This characterization will also determine the potential migration of groundwater in the aquifers to offsite areas.

EPA will seek input from FDEP on the groundwater characterization. FDEP will have the right to review and provide comments on the Settling Defendants' submittals. Additionally, EPA will be assisted by EPA's staff hydro geologist in review of all data submitted and the preparation of recommendations requiring any additional testing for the characterization of the Site's groundwater.

Existing groundwater contamination and selection of appropriate remedies will be addressed in Operable Unit 2 as expeditiously as possible.

IV. DISPUTE RESOLUTION

It is the intent of the EPA and FDEP that the parties will seek to resolve all disputes in a timely and appropriate manner. However, should a dispute arise as a result of the reviews described above that cannot be resolved by EPA and FDEP staff, the EPA Regional Administrator and the FDEP Secretary, or their designees, will meet to attempt to resolve the issue. If the dispute cannot be resolved between the parties, the parties may pursue resolution of the dispute in any manner agreed by the parties or allowed by law. Notwithstanding this SMOU, EPA reserves and retains all rights pursuant to CERCLA, and FDEP reserves and retains all rights pursuant to CERCLA and applicable state law.

V. PUBLIC PARTICIPATION

EPA and FDEP commit to work with the public to provide maximum opportunity for meaningful participation on all studies, reports, proposals and decisions.

VI. EFFECTIVE DATE

The SMOU is effective on the date of execution by the last party to sign.

IN WITNESS WHEREOF, FDEP and EPA REGION 4 have caused this SMOU to be duly executed, the day and year written below.

David B. Struhs

Secretary

Florida Department of Environmental Protection

APPROVED as to form and legality
Elorida Department of Environmental

Protection Agency Attorney

ohn H. Hankinson, Jr. Regional Administrator

U.S. Environmental Protection Agency, Region 4

DATE:

DATE

JUL 14 2000